

PATENT

D3301-00131

II. Amendment to the Claims

Claims 1-8 are pending in the present application. Claims 3 and 7 are canceled. Claims 4, 5 and 6 are amended as set forth below. New Claims 9 and 10 are presented below.

1. (original) A composite sensor for a door, comprising:

a radio-wave transmitter-receiver section for forming a radio-wave detection zone for detecting an object at a location remote from said door; and

a light emitter-receiver section for forming an optical detection zone for detecting an object at a location along and closer to said door;

said light emitter-receiver section including optical detection zone modifying means which increases or decreases a depth dimension of said optical detection zone in a direction perpendicular to said door.

2. (original) The composite sensor according to Claim 1 wherein said optical detection zone modifying means comprises reflecting means for reflecting light beams emitted by said light emitter-receiver section, and light-collecting means for collecting light beams to be received by said light emitter-receiver section, said reflecting means and said light-collecting means collaborating to increase or decrease the depth dimension of said optical detection zone.

3. (canceled)

4. (currently amended) A composite sensor for a door for forming a first detection zone for detecting an object with a radio wave at a location remote from said door, and a second detection zone for detecting an object with light beams at a location along and closer to said door;

first judging means judging whether an object has been detected in said first detection zone;

PATENT

D3301-00131

second judging means judging whether an object has been detected in said second detection zone;

third judging means judging whether the judgment made by said second judging means is valid; and

fourth judging means judging whether an object is present in accordance with the judgments made by said first and second judging means when said third judging means judges that the judgment made by said second judging means is valid, and judging whether an object is present in accordance with the judgment made by said first judging means when said third judging means judges that the judgment made by said second judging means is invalid.

~~said sensor including validating means for making a result of detection in said second detection zone valid when an object is detected in said first detection zone.~~

5. (currently amended) The composite sensor according to Claim 4 wherein said ~~validating means makes said result of detection in said second detection zone valid~~ third judging means judges that the judgment made by said second judging means is valid when an object is detected in said first detection zone continuously for a first time period.

6. (currently amended) The composite sensor according to Claim 4 wherein said ~~validating means makes said result of detection in said second detection zone valid~~ said third judging means judges that the judgment made by said second judging means is valid for a selected time period after when an object is detected in said first detection zone.

7. (canceled)

8. (original) A composite sensor for a door for forming a first detection zone for detecting an object with a radio wave at a location remote from said door, and a second detection zone for detecting an object with light beams at a location along and closer to said door;

PATENT

D3301-00131

said sensor including invalidating means for making a result of detection in said second detection zone invalid when an environmental condition around said door affects said result of detection in said second detection zone.

9. (new) The composite sensor according to Claim 4 wherein said third judging means judges that the judgment made by said second judging means is valid when an object is detected continuously for a time period in said second detection zone.

10. (new) The composite sensor according to Claim 4 wherein said third judgment means judges that the judgment made by said second judging means is valid when an object is detected in said first detection zone.